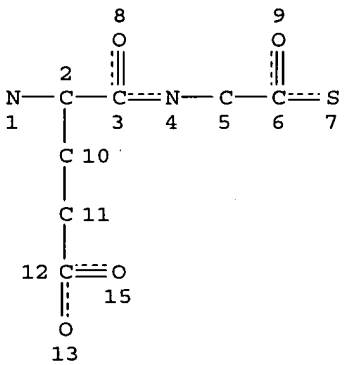
```
=> b reg
FILE 'REGISTRY' ENTERED AT 07:12:37 ON 15 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   13 MAR 2006  HIGHEST RN 876655-59-3
DICTIONARY FILE UPDATES:  13 MAR 2006  HIGHEST RN 876655-59-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information.  *
*                                                                    *
**********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> d que sta l10
L8                STR
```




```
NODE ATTRIBUTES:
CONNECT IS E2  RC AT   1
CONNECT IS M2  RC AT   5
CONNECT IS M1  RC AT   7
CONNECT IS M2  RC AT  13
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
```

```
NUMBER OF NODES IS  14

STEREO ATTRIBUTES: NONE
L10             3 SEA FILE=REGISTRY SSS FUL L8

100.0% PROCESSED    1624 ITERATIONS                          3 ANSWERS
SEARCH TIME: 00.00.01


=> b hcap
FILE 'HCAPLUS' ENTERED AT 07:12:43 ON 15 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 15 Mar 2006  VOL 144 ISS 12
FILE LAST UPDATED: 14 Mar 2006  (20060314/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d all hitstr l12 tot

L12  ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2006 ACS on STN
AN   2001:851189  HCAPLUS
DN   135:371999
ED.  Entered STN:  23 Nov 2001
TI   Ligation method and reagents to form an amide bond
IN   Raines, Ronald T.; Kiessling, Laura L.; Nilsson, Bradley L.
PA   Wisconsin Alumni Research Foundation, USA
SO   PCT Int. Appl., 61 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
IC   ICM  C07K
CC   34-3 (Amino Acids, Peptides, and Proteins)
     Section cross-reference(s): 6
FAN.CNT 2
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   WO2001087920          A2    20011122    2001WO-US15440          20010511 <--
     WO2001087920          A3    20040108
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,
             KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
             GW, ML, MR, NE, SN, TD, TG
```

APP ?

CA---2405105	AA	20011122	2001CA-2405105	20010511	<--
AU2001061530	A5	20011126	2001AU-0061530	20010511	<--
JP2004501103	T2	20040115	2001JP-0585139	20010511	<--
EP---1399465	A2	20040324	2001EP-0935432	20010511	<--
EP---1399465	B1	20050413			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR					
AT----293125	E	20050415	2001AT-0935432	20010511	<--
US2004087779	A1	20040506	2003US-0276515	20030123	<--
US--6972320	B2	20051206			
US2005048192	A1	20050303	2004US-0930702	20040830	<--
PRAI 2000US-203994P	P	20000512	<--		
2000US-209373P	P	20000605	<--		
2000US-255626P	P	20001213	<--		
2001WO-US15440	W	20010511	<--		
2003US-0276515	A2	20030123			
2003US-499231P	P	20030829			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001087920	ICM	C07K
	IPCI	C07K [ICM,7]
	IPCR	C07F0009-00 [I,C]; C07F0009-48 [I,A]; C07F0009-50 [I,A]; C07K0001-00 [I,C]; C07K0001-08 [I,A]
	ECLA	C07F009/48C; C07F009/50A4+M; C07F009/50A1+M; C07K001/08A <--
CA---2405105	IPCI	C07K0001-08 [ICM,7]; C07K0001-00 [ICS,7]; C07F0009-48 [ICS,7]; C07F0009-50 [ICS,7] <--
JP2004501103	IPCI	C07K0001-06 [ICM,7]; C07K0001-12 [ICS,7]; C07K0001-13 [ICS,7]
	FTERM	4H045/AA20; 4H045/BA10; 4H045/BA53; 4H045/BA54; 4H045/BA55; 4H045/FA32; 4H045/FA43; 4H045/FA52 <--
EP---1399465	IPCI	C07K0001-00 [ICM,7]
	IPCR	C07F0009-00 [I,C]; C07F0009-48 [I,A]; C07F0009-50 [I,A]; C07K0001-00 [I,C]; C07K0001-08 [I,A] <--
AT----293125	IPCI	C07K0001-00 [ICM,7] <--
US2004087779	IPCI	C07K0001-04 [ICM,7]; C07F0009-28 [ICS,7]; C07C0231-10 [ICS,7]; C07F0009-50 [ICS,7]; C07K0001-02 [ICS,7]; C07K0001-04 [ICS,7]; C07K0001-08 [ICS,7]
	IPCR	C07F0009-00 [I,C]; C07F0009-50 [I,A]; C07K0001-00 [I,C]; C07K0001-08 [I,A]; C07K0001-107 [I,A]
	NCL	530/409.000
	ECLA	C07F009/50A1+M; C07F009/50A4+M; C07F009/50Z1; C07K001/08A; C07K001/107D; C07K001/107D4 <--
US2005048192	IPCI	A61L0002-00 [ICM,7]
	IPCR	C07F0009-00 [I,C]; C07F0009-48 [I,A]; C07F0009-50 [I,A]; C07K0001-00 [I,C]; C07K0001-08 [I,A]; C07K0001-107 [I,A]
	NCL	427/002.110
	ECLA	C07F009/48C; C07F009/50A1+M; C07F009/50A4+M; C07F009/50Z1; C07K001/08A; C07K001/107D; C07K001/107D4 <--

OS CASREACT 135:371999; MARPAT 135:371999

AB Amide bond formation involves reaction of a phosphinothioester of an amino acid, peptide or protein with an azide of an amino acid, peptide or protein and is useful in the synthesis of peptides and proteins. Thus, treatment of Ac-L-Phe-SCH2PPh2 with N3CH2CONHCH2Ph (syntheses given) in THF/H2O afforded 92% Ac-L-Phe-Gly-NHCH2Ph.

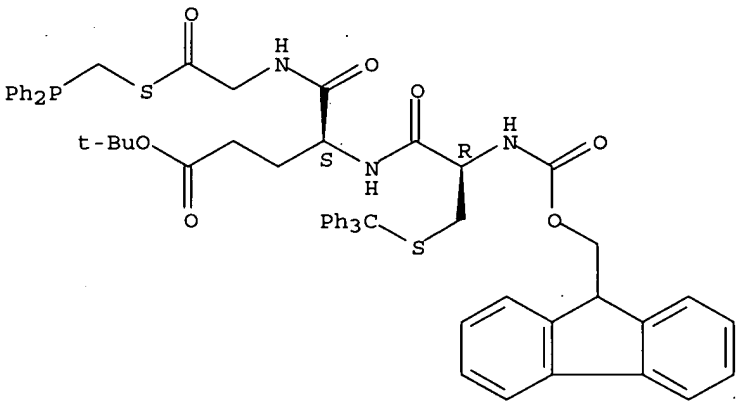
ST ligation method peptide coupling phosphino thioester azide

IT Peptide coupling
(ligation method and reagents to form an amide bond)

IT 100-46-9, Benzylamine, reactions 543-24-8, n-Acetylglycine 598-21-0, Bromoacetyl bromide 1983-26-2, Chloromethylphosphonic dichloride 2018-61-3, n-Acetyl-L-phenylalanine 20938-74-3, n-Methylmercaptoacetamide 289884-70-4
RL: RCT (Reactant); RACT (Reactant or reagent)

(ligation method and reagents to form an amide bond)
IT 1806-49-1P 116433-53-5P 119327-17-2P 160693-57-2P 289038-91-1P
289038-92-2P 289038-93-3P 289038-94-4P 289038-95-5P 324753-11-9P
324753-12-0P 324753-13-1P 324753-14-2P 324753-16-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(ligation method and reagents to form an amide bond)
IT 69753-67-9P **373643-46-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(ligation method and reagents to form an amide bond)
IT **373643-46-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(ligation method and reagents to form an amide bond)
RN 373643-46-0 HCAPLUS
CN Glycine, N-[(9H-fluoren-9-ylmethoxy)carbonyl]-S-(triphenylmethyl)-L-cysteinyl-L-α-glutamylthio-, 2-(1,1-dimethylethyl) 3-S-[(diphenylphosphino)methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

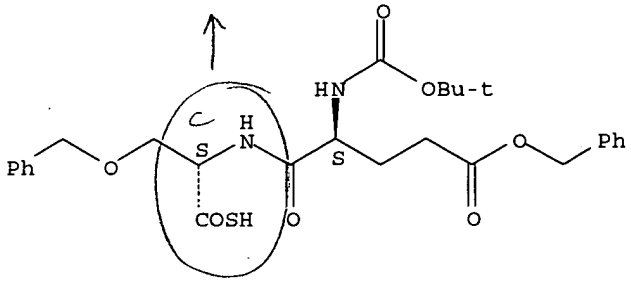


L12 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1993:449878 HCAPLUS
DN 119:49878
ED Entered STN: 07 Aug 1993
TI Preparation of peptide thioacids using the Kaiser oxime resin
AU Schwabacher, Alan W.; Maynard, Terry L.
CS Dep. Chem., Iowa State Univ., Ames, IA, 50011, USA
SO Tetrahedron Letters (1993), 34(8), 1269-70
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
CC 34-3 (Amino Acids, Peptides, and Proteins)
OS CASREACT 119:49878
AB Peptide C-terminal thioacids are readily prepared with protecting groups intact by cleavage of peptides from Kaiser's oxime ester resin by treatment with hexamethyldisilathiane/tetrabutylammonium fluoride. Such thioacids are useful for peptide fragment couplings.
ST Merrifield synthesis peptide thioacid; thiolysis peptide resin hexamethyldisilathiane; sulfide hexamethyldisilyl thiolysis peptide resin; thio amino acid peptide
IT Merrifield synthesis
(of peptide thioacids via thiolysis of resin-bound acids and peptides with hexamethyldisilathiane and fluoride)
IT Amino acids, preparation
Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(thio-, preparation of, via thiolysis of oxime resin-bound derivs. with

hexamethyldisilathiane and fluoride)
IT Solvolysis
(thiolysis, of resin-bound amino acids and peptides with hexamethyldisilathiane and fluoride, thioacids from)
IT 80354-38-7P 81000-39-7P 148529-77-5P 148529-78-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, via thiolysis of oxime resin-bound amino acid with hexamethyldisilathiane and fluoride)
IT 148529-79-7P 148529-80-0P 148529-81-1P **148529-83-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, via thiolysis of oxime resin-bound peptide with hexamethyldisilathiane and fluoride)
IT 3385-94-2, Hexamethyldisilathiane
RL: RCT (Reactant); RACT (Reactant or reagent)
(thiolysis by fluoride and, of resin-bound amino acids and peptides, thioacids from)
IT 7536-58-5D, N-tert-Butoxycarbonylaspartic acid β-benzyl ester, oxime resin-bound 13734-34-4D, oxime resin-bound 15761-38-3D, N-tert-Butoxycarbonylalanine, oxime resin-bound 23680-31-1D, oxime resin-bound 77385-58-1D, oxime resin-bound 79141-09-6D, oxime resin-bound 124194-48-5D, oxime resin-bound 148529-82-2D, oxime resin-bound
RL: RCT (Reactant); RACT (Reactant or reagent)
(thiolysis of, with hexamethyldisilathiane and fluoride, thioacid from)
IT **148529-83-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, via thiolysis of oxime resin-bound peptide with hexamethyldisilathiane and fluoride)
RN 148529-83-3 HCAPLUS
CN L-Serine, N-[N-[(1,1-dimethylethoxy)carbonyl]-L-α-glutamyl]-O-(phenylmethyl)-1-thio-, 5-(phenylmethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Need another C in here



L12 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 1990:406813 HCAPLUS
DN 113:6813
ED Entered STN: 06 Jul 1990
TI Peptidylarginylnitroanilides as enzyme (trypsin) substrates
IN Kuroiwa, Katsumasa; Matsuura, Hitoshi; Katayama, Katsuhiro; Nakatsuyama, Shuichi; Nagasawa, Takeshi; Endo, Koji
PA Nitto Boseki Co., Ltd., Japan
SO Eur. Pat. Appl., 29 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C07K-0005/08
ICS C07K-0001/00; C12Q-0001/38
CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): 7
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP----347734	A2	19891227	1989EP-0110781	19890614 <--

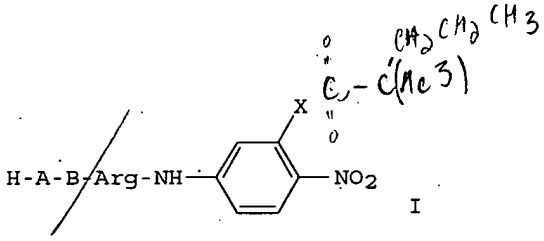
EP----347734	A3	19900411			
R: CH, DE, LI, SE					
JP--02003660	A2	19900109	1988JP-0146089	19880614	<--
JP--08022842	B4	19960306			
JP--02023889	A2	19900126	1988JP-0173788	19880714	<--
JP--07038799	B4	19950501			
US---5115099	A	19920519	1989US-0365418	19890613	<--
EP----513863	A1	19921119	1992EP-0113199	19890614	<--
EP----513863	B1	19970903			
R: CH, DE, LI, SE					
PRAI 1988JP-0146089	A	19880614	<--		
1988JP-0173788	A	19880714	<--		

CLASS

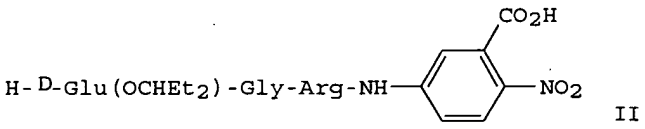
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
EP 347734	ICM	C07K-0005/08	
	ICS	C07K-0001/00; C12Q-0001/38	
	IPCI	C07K0005-08 [ICM,4]; C07K0001-00 [ICS,4]; C12Q0001-38 [ICS,4]	
	IPCR	C07K0005-00 [I,C]; C07K0005-093 [I,A]; C07K0005-097 [I,A]	<--
JP--02003660	IPCI	C07C0279-12 [ICM,5]; C12Q0001-37 [ICA,5]; C12Q0001-56 [ICA,5]	<--
JP--02023889	IPCI	C12Q0001-37 [ICM,5]; C07K0005-08 [ICS,5]	<--
US---5115099	IPCI	C07K0005-08 [ICM,4]; C07K0001-06 [ICS,4]; C12Q0001-38 [ICS,4]	
	IPCR	C07K0005-00 [I,C]; C07K0005-093 [I,A]; C07K0005-097 [I,A]	
	NCL	530/331.000; 435/023.000; 530/337.000	<--
EP----513863	IPCI	C07K0005-08 [ICM,5]; C07C0279-14 [ICS,5]; C12Q0001-37 [ICS,5]	
	ECLA	C07K005/02B	<--

OS MARPAT 113:6813

GI



I



II

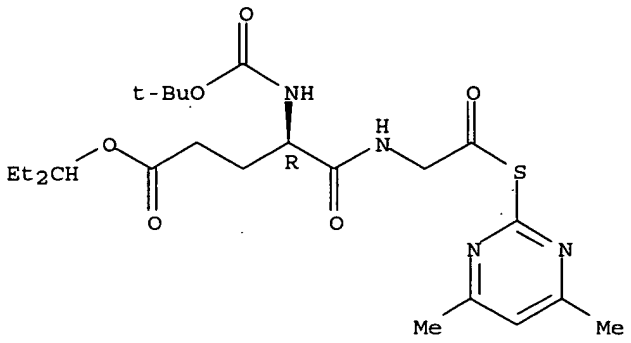
AB The title compds. [I; A = pyroglutamyl, D-Glu(OR), D-Glu(NR1R2); B = Gly, Pro, Ala, sarcosyl, 2-piperidinecarboxyl; R = H, alkyl, cycloalkyl; R1, R2 = H, alkyl, cycloalkyl; NR1R2 = heterocyclyl; X = H, CO2H, alkoxycarbonyl, benzyloxycarbonyl, alkylcarbamoyl], were prepared Thus, BOC-D-Glu(OCHEt2)-Gly-OH (preparation given) was activated by conversion to the 4,6-dimethylpyrimidine-2-thioester. The latter in DMF was added to I (A = B = bond, X = CO2CMe3) (pretreated with N-ethylmorpholine) in DMF with ice cooling followed by stirring overnight to give 80% coupling product, which was hydrolyzed with 2N HCl/HOAc to give 90% II. I were useful in determination of trypsin and α2-Macroglobulin-trypsin complex spectroscopically at 405 nm.

ST arginylnitroanilide enzyme substate; peptidylarginylnitroanilide enzyme substrate; trypsin detn peptidylarginylnitroanilide

IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(peptidylarginylnitroanilides, preparation of as enzyme substrates)

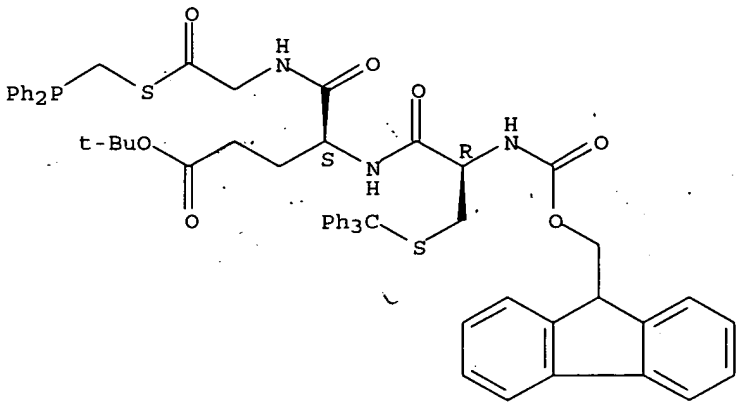
IT Enzymes
RL: RCT (Reactant); RACT (Reactant or reagent)
(substrates, peptidylarginylnitroanilides as)
IT Macroglobulins
RL: RCT (Reactant); RACT (Reactant or reagent)
(α2-, complexes with trypsin, peptidylarginylnitroanilides as substrates for)
IT 1738-76-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of with glutamic acid derivative, in preparation of enzyme substrate)
IT 35897-34-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with aminonitrobenzoate, in preparation of enzyme substrate)
IT 127428-15-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with arginine derivative, in preparation of enzyme substrate)
IT 584-02-1, 3-Pentanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with glutamic acid derivative, in preparation of enzyme substrate)
IT 34404-30-3, BOC-D-Glu-OBzl
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with pentanol)
IT 127428-60-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and coupling of, with glycine derivative, in preparation of enzyme substrate)
IT 127428-59-5P 127428-61-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrogenolysis of, in preparation of enzyme substrate)
IT 127428-16-4P 127428-17-5P 127428-18-6P 127428-19-7P 127428-20-0P
127428-21-1P 127428-22-2P 127428-23-3P 127428-24-4P 127428-25-5P
127428-26-6P 127428-27-7P 127428-28-8P 127428-29-9P 127428-30-2P
127428-31-3P 127428-32-4P 127428-33-5P 127428-34-6P 127428-35-7P
127428-36-8P 127428-37-9P 127428-38-0P 127428-39-1P 127428-40-4P
127428-41-5P 127428-42-6P 127428-43-7P 127428-44-8P 127428-45-9P
127428-46-0P 127428-47-1P 127428-48-2P 127428-49-3P 127428-50-6P
127428-51-7P 127428-52-8P 127449-85-8P 127449-86-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as enzyme (trypsin) substrate)
IT 127428-53-9P 127428-54-0P 127428-55-1P 127428-56-2P 127428-57-3P
127428-58-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for enzyme substrate)
IT 9002-07-7, Trypsin
RL: RCT (Reactant); RACT (Reactant or reagent)
(substrates, peptidylarginylnitroanilides)
IT **127428-58-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for enzyme substrate)
RN 127428-58-4 HCAPLUS
CN Glycine, N-[N-[(1,1-dimethylethoxy)carbonyl]-D-α-glutamyl]thio-, 1-S-(4,6-dimethyl-2-pyrimidinyl) 5-(1-ethylpropyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



```
=> b uspatall
FILE 'USPATFULL' ENTERED AT 07:12:58 ON 15 MAR 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 07:12:58 ON 15 MAR 2006
CA INDEXING COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d bib abs hitstr l14 tot

L14  ANSWER 1 OF 3  USPATFULL on STN
AN      2004:114933  USPATFULL
TI      Ligation method and reagents to form an amide bond
IN      Raines, Ronald T., Madison, WI, UNITED STATES
        Kiessling, Laura L., Madison, WI, UNITED STATES
        Nilsson, Bradley L., Madison, WI, UNITED STATES
PI      US2004087779        A1   20040506
        US---6972320        B2   20051206
AI      2003US-0276515      A1   20030123 (10)
        2001WO-US15440           20010511    [WO 01/87920 A1]
DT      Utility
FS      APPLICATION
LREP    Greenlee Winner & Sullivan, Suite 201, 5370 Manhattan Circle, Boulder,
        CO, 80303
CLMN    Number of Claims: 58
ECL     Exemplary Claim: 1
DRWN    1 Drawing Page(s)
LN.CNT 1708
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB      Methods and reagents for the formation of amide bonds between an
        activated carboxylic acid derivative and an azide useful in the
        synthesis of peptides, proteins and derivatized or labeled amino acids,
        peptide or proteins. The method involves the formation of a
        phosphinothioester which reacts with an azide resulting in amide
        formation. The invention provides phosphinothiol reagents which convert
        activated carboxylic acid derivatives to phosphinothioesters which then
        react with azides to form an amide bond. The methods and reagents of the
        invention can be used for stepwise synthesis of peptides on solid
        supports or for the ligation to two or more amino acids, two or more
        peptide or two or more protein fragments.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT   373643-46-0P
        (ligation method and reagents to form an amide bond)
RN   373643-46-0  USPATFULL
CN   Glycine, N-[(9H-fluoren-9-ylmethoxy)carbonyl]-S-(triphenylmethyl)-L-
       cysteinyl-L-α-glutamylthio-, 2-(1,1-dimethylethyl)
       3-S-[(diphenylphosphino)methyl] ester (9CI)  (CA INDEX NAME)
```

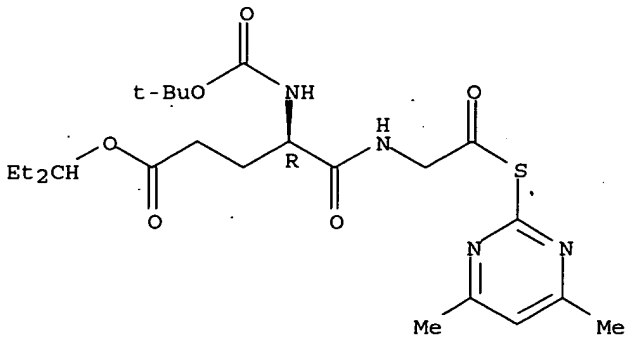
Absolute stereochemistry.



L14 ANSWER 2 OF 3 USPATFULL on STN
AN 92:40823 USPATFULL
TI Substrates for determination of enzyme activity and intermediates for synthesis of the substrates as well as process for producing the intermediates
IN Kuroiwa, Katsumasa, Koriyama, Japan
Matsuura, Hitoshi, Koriyama, Japan
Katayama, Katsuhiro, Koriyama, Japan
Nakatsuyama, Shuichi, Koriyama, Japan
Nagasawa, Takeshi, Urawa, Japan
Endo, Koji, Koriyama, Japan
PA Nitto Boseki Co., Ltd., Fukushima, Japan (non-U.S. corporation)
PI US---5115099 19920519
AI 1989US-0365418 19890613 (7)
PRAI 1988JP-0146089 19880614
1988JP-0173788 19880714
DT Utility
FS Granted
EXNAM Primary Examiner: Wax, Robert A.; Assistant Examiner: Walsh, Stephen
LREP Darby & Darby
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 947
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel compounds represented by the following formula: ##STR1## wherein A represents a specific amino acid residue are excellent as substrates for determination of enzyme activity such as trypsin, etc. The compounds can be synthesized from novel arginyl-3-tert-alkyloxycarbonyl-4-nitroanilides by a novel process comprising a selective deprotection step whereby the protecting group on the α-amine group of arginine is removed in the presence of a hydrochloric acid, acetic acid and dimethylformamide mixture, but a tert-alkyl protecting group on the --COOH group of the nitroanilide ring is not removed by this step.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **127428-58-4P**
(preparation of, as intermediate for enzyme substrate)
RN 127428-58-4 USPATFULL
CN Glycine, N-[N-[(1,1-dimethylethoxy)carbonyl]-D-α-glutamyl]thio-, 1-S-(4,6-dimethyl-2-pyrimidinyl) 5-(1-ethylpropyl) ester (9CI) (CA INDEX NAME)

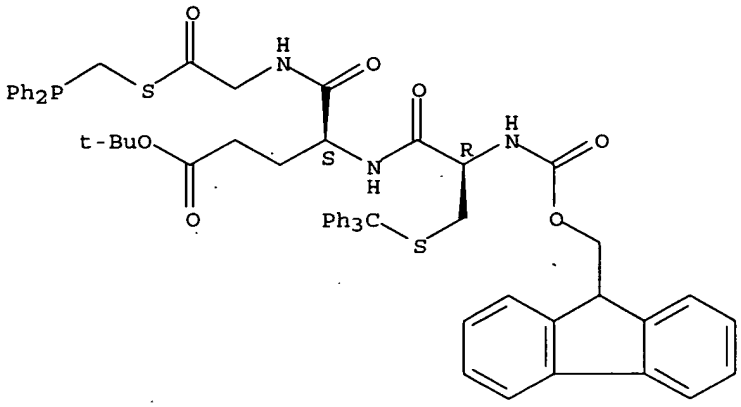
Absolute stereochemistry.



L14 ANSWER 3 OF 3 USPAT2 on STN
AN 2004:114933 USPAT2
TI Ligation method and reagents to form an amide bond
IN Raines, Ronald T., Madison, WI, UNITED STATES
Kiessling, Laura L., Madison, WI, UNITED STATES
Nilsson, Bradley L., Madison, WI, UNITED STATES
PA Wisconsin Alumni Research Foundation, Madison, WI, UNITED STATES (U.S. corporation)
PI US---6972320 B2 20051206
WO2001087920 20011122
AI 2003US-0276515 20010511 (10)
2001WO-US15440 20010511
20030123 PCT 371 date
PRAI 2003US-203994P 20000512 (60)
2003US-209373P 20000605 (60)
2003US-255626P 20001213 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Russel, Jeffrey Edwin
LREP Greenlee, Winner and Sullivan, P.C.
CLMN Number of Claims: 58
ECL Exemplary Claim: 1
DRWN 1 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 1974
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and reagents for the formation of amide bonds between an activated carboxylic acid derivative and an azide useful in the synthesis of peptides, proteins and derivatized or labeled amino acids, peptide or proteins. The method involves the formation of a phosphinothioester which reacts with an azide resulting in amide formation. The invention provides phosphinothiol reagents which convert activated carboxylic acid derivatives to phosphinothioesters which then react with azides to form an amide bond. The methods and reagents of the invention can be used for stepwise synthesis of peptides on solid supports or for the ligation to two or more amino acids, two or more peptide or two or more protein fragments.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **373643-46-0P**
(ligation method and reagents to form an amide bond)
RN 373643-46-0 USPAT2
CN Glycine, N-[(9H-fluoren-9-ylmethoxy)carbonyl]-S-(triphenylmethyl)-L-cysteinyl-L-α-glutamylthio-, 2-(1,1-dimethylethyl) 3-S-[(diphenylphosphino)methyl] ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



```
=> d his

     (FILE 'HOME' ENTERED AT 06:55:58 ON 15 MAR 2006)

     FILE 'HCAPLUS' ENTERED AT 06:56:40 ON 15 MAR 2006
L1             1 US2004063902/PN OR (US2003-622359 OR US2002-398891#)/AP,PRN
               E MIRANDA L/AU
L2            13 E3,E18
               E MIRANDA LESLIE/AU
L3             7 E3-6
L4            74 GRYPHON/CS,PA

     FILE 'REGISTRY' ENTERED AT 06:59:12 ON 15 MAR 2006

     FILE 'HCAPLUS' ENTERED AT 06:59:15 ON 15 MAR 2006
L5             TRA L1 1- RN :         5 TERMS

     FILE 'REGISTRY' ENTERED AT 06:59:15 ON 15 MAR 2006
L6             5 SEA L5
L7             3 L6 AND (S OR SE)/ELS
L8               STR
L9             0 L8
L10            3 L8 FULL
               SAV TEM L10 AUD359F0/A

     FILE 'HCAPLUS' ENTERED AT 07:10:13 ON 15 MAR 2006
L11            3 L10
L12            3 L11 AND (PY<=2002 OR PRY<=2002 OR AY<=2002)

     FILE 'HCAOLD' ENTERED AT 07:11:09 ON 15 MAR 2006
L13            0 L10

     FILE 'USPATFULL, USPAT2' ENTERED AT 07:11:14 ON 15 MAR 2006
L14            3 L10

     FILE 'HCAPLUS' ENTERED AT 07:11:26 ON 15 MAR 2006
L15            0 L11-12 AND L1-4

=>
```